

## ABSTRACT OF THE DISCLOSURE

The present invention provides a performance assay that measures the total antioxidant activity of a composition using oxygen uptake in contrast to prior art methods that measure antioxidant capacity by indirectly measuring degradation of a fluorescent compound by following the disappearance of fluorescence. Using the performance antioxidant assay of the present invention, an antioxidant composition having synergistic activity is provided by the present inventors that includes flavonoids such as the flavonol quercetin, mixed tocopherols or tocotrienols, grape skin extract, green tea extract and bush plum. The antioxidant activity of the present composition exceeds 6,000 micromoles Trolox equivalent units per gram using the present invention.